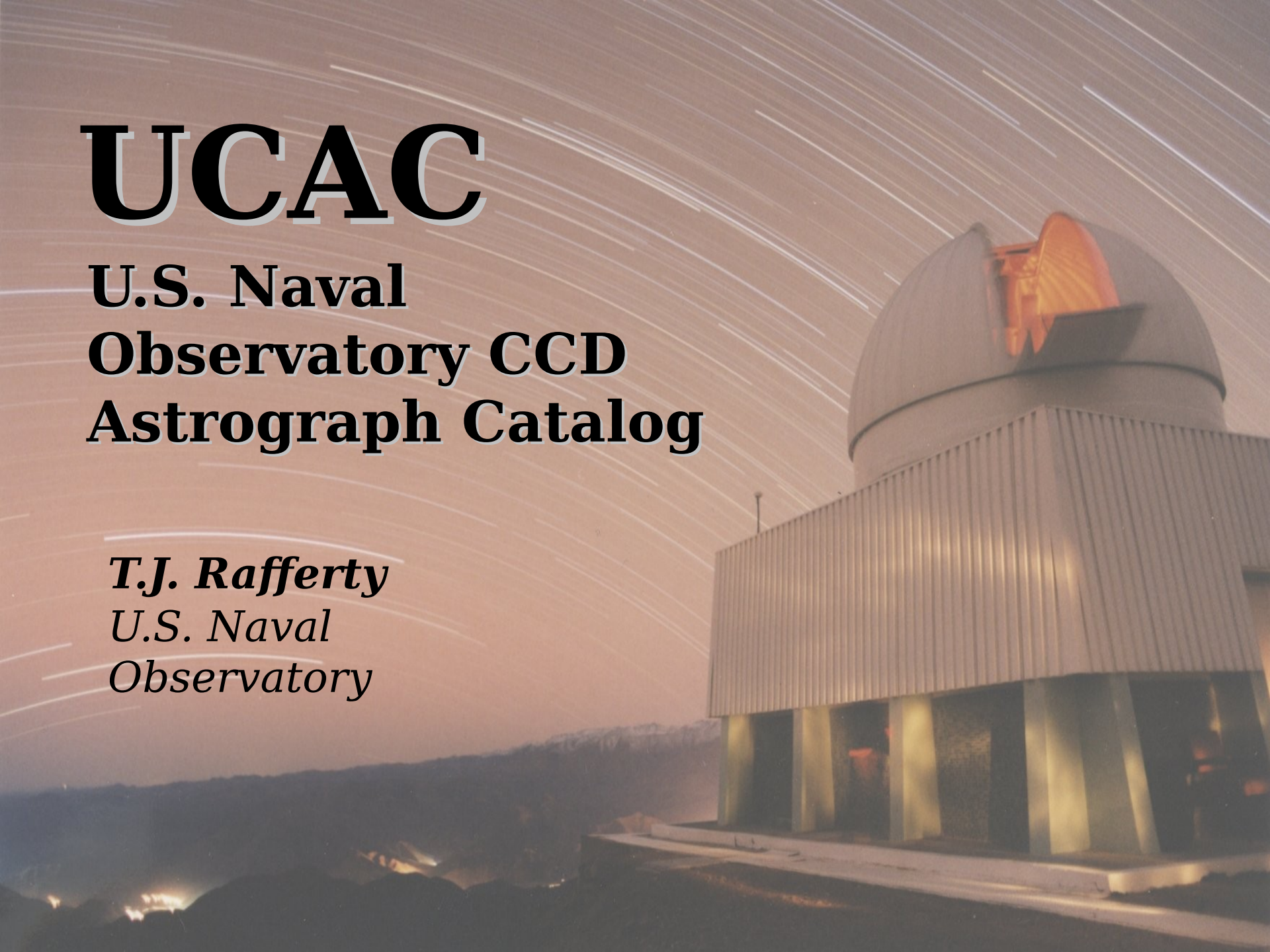


UCAC

U.S. Naval Observatory CCD Astrograph Catalog

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UCAC

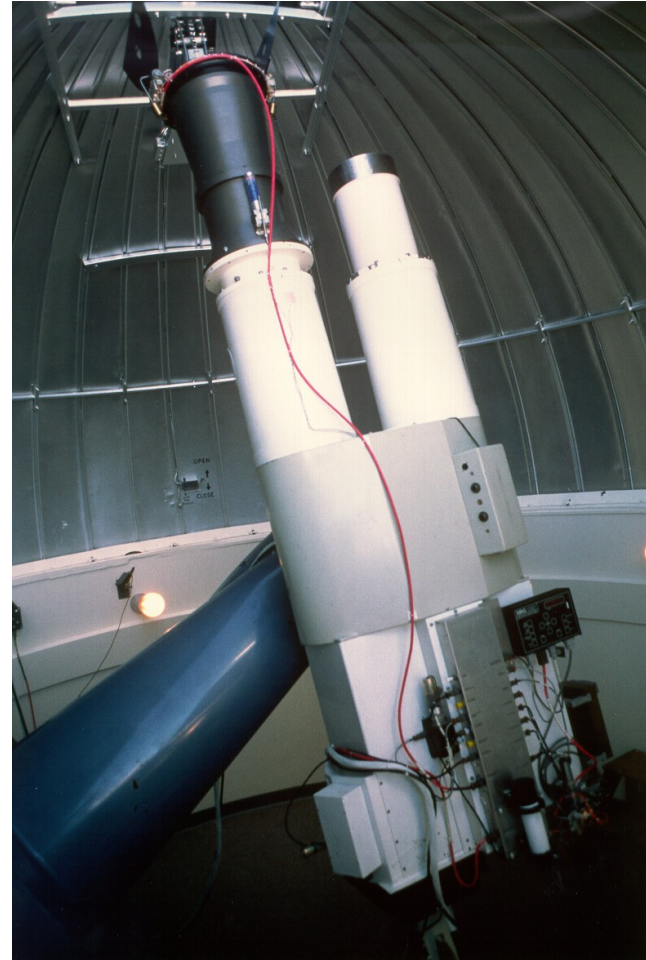
Instrumentation

Telescope

Focal length	2057mm
Plate scale	100"/mm
Bandpass	550-710nm

CCD:

Chip size	4094 x 4094 pixels
Pixel Size	9.0 microns
Pixel scale	0.905"/pixel
Field of view	61 x 61 arcmin
Bandpass	579-642nm



UCAC Observing

Preliminary reductions	Tycho-2
Global adjustment	Hipparcos
2-fold overlap	each star on two fields
Two exposures per field:	
25 second exp	8.0 th -14.5 th mag
125 second exp	10.0 th -16.0 th mag
200 second exp	10.5 th -16.5 th mag (ICRF sources)
Observing rate	200 frames (100 fields) per night

UCAC Accuracy

Magnitude
Accuracy

8 th	40 mas
9 th	30 mas
10 th – 14 th	20 mas
15 th	40 mas
16 th	70 mas

UCAC Proper Motions

<u>Mag</u>	<u>Source Catalogs</u>	<u>Errors</u>
8.0 th -11.0 th	140 TC/PC, AC	1-2 mas/yr
11.0 th -12.5 th	AC, AGK2	2 mas/yr
12.5 th -16.0 th	NPM, SPM	3-5 mas/yr

Catalog Density (stars/sq deg)

<u>Catalog</u>	<u>Average</u>	<u>Max</u>	<u>Min</u>
UCAC	1,700	55,000	300
Hipparcos	3	14	0
Tycho-2	60	350	6

UCAC Milestones

Feb 1998: started observations
from Chile

Mar 2000: UCAC1 released

UCAC1

27 million star positions with proper motions

Sky coverage: -90 to -6 degrees declination

Magnitude range: 8th to 16th

Positions on ICRS

Epoch: 1999.0

Proper motions using Tycho-2 & USNO A2.0

Available on CD-ROM

UCAC Milestones

Feb 1998: started observations from Chile

Mar 2000: UCAC1 released

Sep 2000: southern hemisphere completed

May 2001: end observations from Chile

Jun 2001: start observations from Flagstaff

2003: northern hemisphere completed

2004: final catalog released

UCAC Information

Astronomical Journal paper:

Zacharias et al., vol 120, pp 2131-2147, October 2000

USNO web site:

<http://ad.usno.navy.mil/ucac/>